

the eruption exhibited by the patient but to see all of it and, if necessary, the whole surface of the body.

The most important principle of dermatologic differential technique is that a dermatosis cannot be identified or recognized by the general pictorial pattern or design of the eruption.

Skin diseases present an endless variety of clinical pictures modified in the course of their clinical evolution by numerous external and internal incidental factors so that different nosologic forms may present a striking general resemblance in pictorial design. However, *while dermatoses have no pathognomonic or static pictorial design by which they can be identified, each dermatosis, recognized as an independent nosologic entity, has a certain number of characteristic morphologic traits, the presence of which in toto or in majority renders its diagnosis certain or at least likely.*

TECHNIQUE OF THE DIFFERENTIAL DIAGNOSIS

The first step in dermatologic diagnosis is the detailed description of the composite morphologic picture and of the individual lesions. Among the important morphologic traits which should enter the description are: the color and shape of the lesions, their distribution and localization, whether they are discrete and well defined, or diffuse and ill defined, whether they are circinate, linear or irregular in shape. This is a matter of great importance. The exact color of the lesions must be given. Dermatologic diagnosis often hinges on very delicate shades of color. Whether the lesion is pink, bright, angry red or dusky red, cyanotic, violaceous, purpuric, yellowish or pale white, matters greatly in differential diagnosis.

Primary lesions must be described first, macules, papules or vesicles, and, secondary, scales, crusts, excoriations, fissures, ulcers, pigmentations, infection or lichenification, after.

The *method of involution of the lesions* is of utmost diagnostic importance and should never be omitted. Whether the lesions have tendency to produce ulcerations and scars or a loss of hair, whether the vesicular lesions remain unbroken and heal up by desiccation, or break open spontaneously or by scratching, may decide diagnosis one way or another.

Equally important is to state the method of distribution and dissemination of the original lesions, whether they show marginal activity and spread through the extension of the edges, through contact of the contiguous parts, or spring up simultaneously on different widespread parts of the body.

Each dermatosis accepted as an independent nosologic entity (such as eczema, *i. e.*, dermatitis, lichen planus, psoriasis, syphilis, scabies) has several characteristic morphologic traits which are present in majority or *in toto* in fully developed cases.

After detailed morphologic description the clinician must determine which particular dermatosis the present morphologic syndrome would fit the

best. The *correct technique of morphologic differential diagnosis calls both for a positive and a negative check-up*, which means that the clinician must prove not only why this particular case should be diagnosed as eczema, but also why it could not be taken for psoriasis, seborrhea or any other dermatosis having a general pictorial resemblance with his case.

This procedure may seem tedious and long, but is the only rational way, particularly for a beginner, to arrive at a correct diagnosis and guard against groping in the darkness of false diagnostic clues. Gradually with the accumulation of experience and the repetition of the procedure, a skill and rapidity of the technique develops which may well simulate a snapshot diagnosis. It is to be remembered *that the presence or absence of one or two characteristic morphologic traits does not indicate or rule out a certain dermatosis. It is the presence of the majority of its characteristic morphologic traits which determines the positive diagnosis of a certain dermatosis.*

(To be continued)

A DIAGNOSTIC STUDY OF INDUSTRIAL MEDICINE*

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BEFORE proceeding to a definite discussion of various factors in industrial medicine some allegorical references may be in order.

AN ALLEGORICAL REFERENCE

Industrial medicine, a struggling youth of twenty years comes to us complaining of headache, palpitation of the heart, pains in the muscles and joints, loss of weight, and a feeling of general weakness.

The family and personal history show a gradual development of activities with the usual childhood and adolescent difficulties.

In the physical examination of this patient, let us assume that the medical profession represents the head. We find that the eyes show a considerable degree of myopia; the hearing is definitely impaired in both ears; a further examination of the right eye shows the presence of a sarcoma of the fee-splitting variety. Mental tests give the impression that there has been lack of coördinative planning and administration.

Let the heart represent industrial executives. Here there is a definite valvular leakage and there are "missed beats" and palpitation on the slightest exertion.

The lungs correspond to industrial commissions and boards. The findings show considerable dullness, whispered bronchophony and many fine râles at both apices.

* From the Division of Industrial Health, National Safety Council, Chicago, Illinois.

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The nervous system is represented by the insurance carriers. Examination shows the reflexes exaggerated at one time and inhibited at others; the pupils are unequal and sluggish in reaction; the Babinski and Romberg are positive, and the ankle clonus is increased.

The working population is synonymous with the muscular and skeletal systems. Much muscular incoordination is evident; the posture is poor; there is a definite atrophy of certain sets of muscles and hypertrophy of others.

Without attempting to carry the allegorical application any further, and submit laboratory findings which would probably only confirm this brief presentation of the physical findings, I think that we can safely assume that this is a fair clinical picture of our young patient, industrial medicine of today.

Now let us discuss briefly the application in relation to industrial medicine.

SIGNIFICANCE OF INDUSTRIAL INJURIES AND ILLNESSES

With approximately fifty million persons gainfully employed in the United States, and the loss from illness in industry totaling ten billion dollars a year, there must be definite reasons why industrial medicine has not assumed a more important place in our national life.

Speaking conservatively, there must be approximately twenty thousand industrial physicians and surgeons in actual practice, and yet after fifteen years a representative national organization in industrial medicine and surgery has approximately a membership of only 325. Three other official and unofficial organizations have sections on industrial medicine the membership and attendance of which has never reached more than one hundred each.

It would seem that the great opportunity lies in feeding a regular and nutritious diet of information and principles to the great number of part-time industrial practitioners and the welding of them into a homogeneous and coordinative group. Similarly, another great need lies in providing an adequate type of medical and health supervision for the employees in the great number of small plants constituting 95 per cent of all of our industrial groups.

Then, too, we must provide educational opportunities for undergraduates as well as postgraduate courses. This should be done on a national basis by a body whose authority and recommendations would be unquestioned. Certification of specialization on an optional basis would then be a natural development.

ATTITUDES OF INDUSTRIAL EXECUTIVES AND COMMISSIONS

Industrial executives and administrators as a rule are apparently unaware that it is their responsibility to provide safe and healthful working conditions for their employees. I have observed

numbers of manufacturers who do not have adequate knowledge either of the processes or materials to which their workmen are exposed. It might be well here to mention the inseparability of safety and health work; their objective is the same, namely, protection; when safety and health supervision break down, the results are the same—disability, reduction of earning power, and economic loss both to employee and employer. Injuries may be classified as mechanical, thermal, photic, chemical, electrical, and bacterial, which means that there is no hard-and-fast line separating safety and health procedures. Finally, the causes and results of both illness and accidents are definitely concerned with the human body and mind.

Some industrial commissions have done excellent work, but I think most of us will agree that there is room for much improvement. The outstanding defect seems to be the disregard of respect for sound medical advice and the lack of provision for retaining one or more competent physicians as technical advisers. Any commission has the right to ask industries within its jurisdiction to make definite and specific provisions for the protection of the health and safety of employees; but, logically, it must also set up the mechanism by which such standards can be continuously supervised and maintained. I have recently had an experience which strikingly showed an elaborate preparation for the former, but an utter disregard for the latter.

Insurance carriers, with all their previous difficulties, are now finding new complications in the tremendously expanding field of underwriting new health risks. A considerable number of those who are honest admit that the technical difficulties involved are quite beyond their present capabilities, but they are doing what they can. In common with industrial commissions, they probably will eventually see the wisdom of retaining expert advisers on industrial hygiene; failure to do so will probably lead to economic difficulties and eventual annihilation in this increasingly competitive field.

The day of the "big stick" has passed; we are on the doorstep of an era when the individual employee will more and more seek what he thinks are his "rights." Is it bolshevistic for an employee to seek protection against the hazardous materials, processes, and practices to which he is exposed? Shall man-power be subordinated to production and monetary gain?

PROGNOSIS FOR INDUSTRIAL MEDICINE

Possibly I have painted a very pessimistic picture. Really, however, the prognosis for industrial medicine is quite favorable with the appropriate type of therapy. The great problems of industrial health and safety will never be solved until the emphasis is shifted from curative surgical and medical procedures to the preventive phases—not that the former are unimportant; in truth, the two cannot be dissociated.

There is cause for encouragement; a rainbow has made its appearance on the horizon. Of the approximately three thousand advisory letters written each year by the Industrial Health Division of the National Safety Council, 20 per cent refer to physical examinations; 60 per cent embrace chemical health hazards; the remainder refer to miscellaneous subjects. We have an increasing number of calls for health educational and informational material, and for suggestions for the carrying out of health courses and campaigns in industry. An increasingly larger number of questions are coming to us on the sociological problems of industrial health. A large industrial association has prepared a manual on health and first aid for distribution to its members.

We also have requests for actual statistical data showing the beneficial results accruing from employment physical examinations, periodic reexaminations, the correction of physical defects, and the like. Such figures are obtainable only in rare instances and I do not need to further impress upon you the difficulty of showing tangible returns. The keeping and analysis of records is time-consuming and expensive, but such data must be provided if we are to establish the economic necessity for medical and safety services.

The administration of industrial medical programs shows all the permutations and combinations that are possible on a Chinese lottery ticket. Industrial relations groups claim that they are responsible for the administration of industrial medical and safety services; safety departments feel that medical and health procedures belong under their jurisdiction; it is comparatively rare, but has occurred, that a physician has undertaken the management of all three activities. Probably the ideal arrangement is to place all three departments on an equal authoritative basis and make them all directly responsible to the general manager. I can see no large measure of success for any unless all three activities are constructively coordinated.

Economists tell us that within the next five years efficiency will be increasingly emphasized and in meeting greater competition the industry which is most efficient will make the most progress. Certainly there is a direct relationship between health and efficiency, and I would interpret this to mean that more emphasis will be placed on health.

END TO BE ACHIEVED

Finally, I think that we can feel that this young man—industrial medicine—has a real chance for making a name for himself and building a character and reputation worthy of the consideration of other medical specialties. We envision, not an industrial world where employees live by health rules and become veritable hygienic robots—God forbid—but workshops, market places, and stores where employees will be given the opportunity to achieve the birthright of every useful citizen—a sane mind in a sound body.

NEUROPSYCHIATRIC CASE RECORDS*

A SUGGESTED OUTLINE

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THE following outline of neuropsychiatric examination is an effort to outline the minimal essential facts to be ascertained in the neurologic and psychiatric examination of a patient. Such a scheme, in the main, is at present utilized in the respective dispensaries of the Johns Hopkins Hospital, where the author was a one-time staff member.

Inasmuch as the time the student and clinician can usually give to each patient is all too meager, it is very important that the physician utilize a systematic mode of approach which at least gives attention to the minimal essential facts and is also time-saving and sound in content and method. Such a history must be selective, but also plastic enough to permit elaboration on important meaningful facts, especially if they can perhaps be used therapeutically, or at least light be thrown on the *modus operandi* of the psychobiological reaction.

Source and Reliability of the History.—Since patients often cannot give the history in logical sequence, it is often best to first take pencil notes and later record such in ink when they have been reviewed and corrected by the clinician in charge. In most cases it is not only unsatisfactory, but a waste of time to examine a patient who comes alone to the clinic. Every effort must be bent to obtain first the history from a relative, friend, or social welfare worker who may have at hand the pertinent facts of the case. It is an invariable rule that the informant should be interviewed first before attempting to examine the patient. Strict privacy should be maintained by proper separate cubical or examining-room facilities.

Neatness is desirable. Make headings for special topics, and underline important facts.

COMPLAINT: Give a succinct, concrete statement of what the patient (in his own words) or others referring the patient would like help for, and the duration of each complaint.

ONSET OF PRESENT ILLNESS: Earliest changes and developments noticed by friends or experienced by patient, and their evolution. Situation; with special attention to facts involving difficulty of adaptation.

PERSONAL HISTORY: Make the chronology definite. Born where, and when? Illnesses in infancy, childhood, adult life.

School.—Opportunities and results; give dates.

Positions held; efficiency; satisfaction in work.

Habits in regard to use of alcohol, tobacco, etc., and sexual indulgence.

Marriage and children, etc. Give dates.

In some cases we need detail of *personal development* and of *formation of habits*.

Personality: Thinks in terms of I (egotropic), or in terms of we (koinotropic); disposition; ability to get along with others, etc.

* From the State Education Department of the University of the State of New York.